AMENDMENTS TO THE CLAIMS

1. (Original) A method of preparing a cell concentrate, comprising the steps of:

providing a physiological solution not previously subjected to centrifugation;

subjecting said physiological solution to a filter to produce a filter retentate and a permeate solution, wherein said filter retentate comprises platelets, nucleated cells, or both per unit volume greater than in the physiological solution and wherein said permeate solution comprises plasma and red blood cells; and

removing the filter retentate from the filter.

2. (Original) The method of claim 1, wherein the physiological solution comprises bone marrow aspirate, blood, or a mixture thereof.

3. (Original) The method of claim 1, wherein said nucleated cells comprise leukocytes, stem cells, connective tissue progenitor cells, osteoprogenitor cells, chondroprogenitor cells, or a mixture thereof.

4. (Original) The method of claim 1, wherein the stem cells are mesenchymal stem cells, hematopoietic stem cells, or both.

5. (Original) The method of claim 1, wherein the providing step comprises combining an additional solution with the physiological solution.

6. (Original) The method of claim 5, wherein the additional solution is water.

7. (Original) The method of claim 5, wherein the additional solution is a hypotonic solution.

8. (Original) The method of claim 5, wherein the additional solution is a hypotonic solution comprising sodium chloride.

9. (Original) The method of claim 1, further comprising delivering the filter retentate removed from the filter to a bone defect in an individual.

10. (Original) The method of claim 1, wherein said method further comprises the step of admixing a scaffold material to the filter retentate removed from the filter to produce a scaffold material/filter retentate mixture.

11. (Original) The method of claim 10, further comprising the step of delivering the scaffold material/filter retentate mixture to a bone defect in an individual.

12. (Original) The method of claim 10, wherein the scaffold material is comprised of a block, paste, dust, cement, powder, granule, putty, liquid, gel, solid, or a mixture thereof.

13. (Original) The method of claim 10, wherein the scaffold material is comprised of a ceramic, a polymer, a metal, allograft bone, autograft bone, demineralized bone matrix, or a mixture thereof.

14. (Original) The method of claim 10, wherein the scaffold material is biodegradable.

15. (Original) The method of claim 10, wherein the scaffold material is osteoconductive, osteogenic, osteoinductive, or a combination thereof.

16. (Original) The method of claim 10, wherein the scaffold material is comprised of synthetic material, natural material, or a combination thereof.

17. (Original) The method of claim 10, said method further comprising the step of admixing a biological agent with the filter retentate removed from the filter, the scaffold material, or a combination thereof.

18. (Original) The method of claim 17, wherein the biological agent admixed with the scaffold material is further defined as the biological agent being comprised on the scaffold material, in the scaffold material, or both.

19. (Original) The method of claim 10, further comprising the step of admixing a clotting initiator with the second product, the scaffold material, or both.

20. (Original) The method of claim 1, wherein the filter retentate removed from the filter is subjected to at least one further processing step.

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102. (Original) A method of preparing a cell concentrate, comprising the steps of:

providing a physiological solution not previously subjected to centrifugation;

subjecting said physiological solution to a leukocyte reduction filter to produce a filter retentate and a permeate solution, wherein said filter retentate comprises platelets, nucleated cells, or both per unit volume greater than in the physiological solution and wherein said permeate solution comprises plasma and red blood cells; and

removing the filter retentate from the filter.